

PTO-1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

		Sheet 1	of.	_2:
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DATENT DOCIMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSL	4,032,947	6/1977	Kesel et al.			
i	3,997,799	12/1976	Baker			
	5,448,513	9/1995	Hu et al.			
	4,298,962	11/1981	Hamano et al.			
	3,439,214	4/1969	Kabell			
1,	6,081,443	6/2000	Morishita			
V	6,111,778	8/2000	MacDonald et al.			

FOREIGN PATENT DOCUMENTS

· EXAMINER INITIALS		DOCUMENT NUMBER			CLASS	SUB CLASS	TES/NO TOTALESCAPE	
		FR 2 197 494	3/1974	French				
1		EP 1 180 799	2/2002	European				
		EP 0 030 856	6/1981	European				
		GB 1 414 228	11/1975	Great Britain				
		EP 0 694 977	1/1996	European				
		JP 02 294076	2/1991	Japanese				
	,	EP 1 237 193	9/2002	European				
V		EP 0 878 804	11/1998	European				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WEL	"The Multistable Charge-Controlled Memory Effect in SOI MOS Transistors at Low Temperatures", Tack et al., IEEE Transactions on Electron Devices, Vol. 37, No. 5, May 1990, pp.1373-1382

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U.S. DEPARTMENT OF COMMERCE

ATTY. DOCKET NO. 211.001-D3-US SERIAL NUMBER

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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GROUP ART UNIT

APPLICANT(S)

		U.	S. PATENT DOCUMENTS	·		
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
USL	5,936,265	8/1999	Koga			
1	5,780,906	7/1998	Wu et al.			
	5,144,390	9/1992	Matloubian			
\bigvee	5,696,718	12/1997	Hartmann			

FOREIGN PATENT DOCUMENTS SUB examiner DOCUMENT COUNTRY CLASS CLASS INITIALS NUMBER DATE EP 0 801 427 10/1997 European EP 0 513 923 11/1992 European

OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)

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INFORMATION DISCLOSURE STATEMENT

BY APPLICANT

FILING DATE GROUP ART UNIT December 1, 2003

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER			CLASS	SUB CLASS	FILING DATE
USL	4,298,962	11/1981	Hamano et al.			
1	5,489,792	2/1996	Hu et al.			
	5,982,003	11/1999	Hu et al.			
	6,121,077	9/2000	Hu et al.			
	6,300,649	10/2001	Hu et al.			
	6,518,105	2/2003	Yang et al.			
1	2002 0070411	6/2002	Vermandel et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Document Number	DATE	COUNTRY	CLASS	SUB CLASS	TRUMSLATION TES/NO
WSL	EP 0 731 972	11/2001	European			
1	EP 0 362 961 B1	2/1994	European			
1	EP 0 362 961 A1	4.1990	European			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WEL	"A Capacitorless Double-Gate DRAM Cell", Kuo et al., IEEE Electron Device Letters, Vol. 23, No. 6, June 2002, pp.345-347					
	"A Capacitorless Double-Gate DRAM Cell for High Density Applications", Kuo et al., IEEE IEDM, 2002, pp.843-946					
	"The Multi-Stable Behaviour of SOI-NMOS Transistors at Low Temperatures", Tack et al., Proc. 1988 SOS/SOI Technology Workshop (Sea Palms Resort, St. Simons Island, GA, Oct. 1988), p.78					
	"The Multistable Charge-Controlled Memory Effect in SOI MOS Transistors at Low Temperatures", Tack et al., IEEE Transactions on Electron Devices, Vol. 37, No. 5, May 1990, pp.1373-1382					
	"Mechanisums of Charge Modulation in the Floating Body of Triple-Well nMOSFET Capacitor-less DRAMs", Villaret et al., Proceedings of the INFOS 2003, Insulating Films on Semiconductors, 13th Bi-annual Conference, June 18-20, 2003, Barcelona (Spain), (4 pages)					

EXAMINER

DATE CONSIDERED

Sheet 4 of 23

PTO-1449 (Modiling

U.S. DEPARTMENT OF COMMERCE

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ATTY. DOCKET NO.

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PATENT AND TRADEMARK OFFICE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE

GROUP ART UNIT

December 1, 2003

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSU	2001/0055859	12/2001	Yamada et al.			
1	2002/0030214	3/2002	Horiguchi			
	2002/0034855	3/2002	Horiguchi et al.			
	2002/0051378	5/2002	Ohsawa			
	2002/0076880	6/2002	Yamada et al.			
	2002/0098643	7/2002	Kawanaka et al.			
	2002/0110018	8/2002	Ohsawa			
	2002/0114191	8/2002	lwata et al.			
	2002/0130341	9/2002	Horiguchi et al.			
	2002/0160581	10/2002	Watanabe et al.			
	2003/0003608	1/2003	Arikado et al.			
	2003/0015757	1/2003	Ohsawa			
	2003/0035324	2/2003	Fujita et al.			
	2003/0057487	3/2003	Yamada et al.			
	2003/0057490	3/2003	Nagano et al.			
V	2003/0112659	6/2003	Ohsawa			

FOREIGN PATENT DOCUMENTS

ſ	EXAMINER INITIALS	Document Number	DATE	COUNTRY	CLASS	SUB CLASS	TRUISIATION TES/NO
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OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)

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APPLICANT(S)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

		ช.	S. PATENT DOCUMENTS			
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSI	2003/0146488	8/2003	Nagano et al.			
ĺ	2003/0151112	8/2003	Yamada et al.			
	6,252,281	6/2001	Yamamoto et al.			
	6,292,424	9/2001	Ohsawa			
	6,351,426	.2/2002	Ohsawa			
	6,466,511	10/2002	Fujita et al.			
	6,538,916	3/2003	Ohsawa			
	6,548,848	4/2003	Horiguchi et al.			
\overline{V}	6,567,330	5/2003	Fujita et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	 HATION 3/NO
WSL	EP 1 191 596	3/2002	European			
	EP 1 233 454	8/2002	European			
	JP 247735`	8/2000	Japanese			
	JP 274221	9/2000	Japanese			
	JP 389106	12/2000	Japanese			
Ų.	JP 180633	6/2001	Japanese			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WEL	"A Memory Using One-Transistor Gain Cell on SOI (FBC) with Performance Suitable for Embedded DRAM's", Ohsawa et al., 2003 Symposium on VLSI Circuits Digest of Technical Papers, June 2003 (4 pages)
	"FBC (Floating Body Cell) for Embedded DRAM on SOI, Inoh et al., 2003 Symposium on VLSI Circuits Digest of Technical Papers, June 2003 (2 pages)
V	"Toshiba's DRAM Cell Piggybacks on SOI Wafer", Y. Hara, EE Times, June 2003

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PTO-1449 (Modification and Party DOCKET NO.

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Sheet 6 of 23 SERIAL NUMBER

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INFORMATION DISCLOSURE STATEMENT .
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Fazan et al.

GROUP ART UNIT

December 1, 2003

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	Document Number	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSL	4,979,014	12/1990	Hieda et al.			
ws	5,258,635	11/1993	Nitayama et al.		-	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TES/NO TES/NO	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

usv	"Memory Design Using a One-Transistor Gain Cell on SOI", Ohsawa et al., IEEE Journal of Solid- State Circuits, Vol. 37, No. 11, November 2002, pp.1510-1522						
1	"Opposite Side Floating Gate SOI FLASH Memory Cell", Lin et al., IEEE, March 2000, pp.12-15						
	"Advanced TFT SRAM Cell Technology Using a Phase-Shift Lithography", Yamanaka et al., IEEE Transactions on Electron Devices, Vol. 42, No. 7, July 1995, pp.1305-1313						
	"Soft-Error Characteristics in Bipolar Memory Cells with Small Critical Charge", Idei et al., IEEE Transactions on Electron Devices, Vol. 38, No. 11, November 1991, pp.2465-2471						
	"An SOI 4 Transistors Self-Refresh Ultra-Low-Voltage Memory Cell", Thomas et al., IEEE, March 2003, pp.401-404						
	"Design of a SOI Memory Cell", Stanojevic et al., IEEE Proc. 21 st International Conference on Microelectronics (MIEL '97), Vol. 1, NIS, Yugoslavis, 14-17 September 1997, pp.297-300						
	"Effects of Floating Body on Double Polysilicon Partially Depleted SOI Nonvolatile Memory Cell", Chan et al., IEEE Electron Device Letters, Vol. 24, No. 2, February 2003, pp.75-77						
	"MOSFET Design Simplifies DRAM", P. Fazan, EE Times, May 14, 2002 (3 pages)						
	"One of Application of SOI Memory Cell Memory Array", Lončar et al., IEEE Proc. 22 nd International Conference on Microelectronics (MIEL 2000), Vol. 2, NIŠ, Serbia, 14-17 May 2000, pp.455-458						
	"A SOI Current Memory for Analog Signal Processing at High Temperature", Portmann et al., 1999 IEEE International SOI Conference, Oct. 1999, pp.18-19						
V	"Chip Level Reliability on SOI Embedded Memory", Kim et al., Proceedings 1998 IEEE International SOI Conference, Oct. 1998, pp.135-139						

EXAMINER	CONSIDERED	1/15/	105
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		Ū.	S. PATENT DOCUMENTS	•				
EXAMINER	DOCUMENT	DATE	name		SUB FIL			
INITIALS	NUMBER			CLASS	CLASS	DAT	E	
WSZ	5,886,385	3/1999	Arisumi et al.					
USL.	5,929,479	7/1999	Oyama					
		FOR	eign patent documents					
EXAMINER	DOCUMENT				SUB		SIATION IS/NO	
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			ced Leakage Current in 0.15µ m S			ot ol		
WEL			tional SOI Conference, Oct. 1996,			ot a,		
		I Wafers", Chi	loating-Body for High Density Low et al., Proceedings 1995 IEEE Into				Oct.	
			cts in SOI DRAM/SRAM Access T , No. 5, May 1996, pp.193-195	ransistors",	A. Wei, IE	EE		
		ind Annihilation	Channel Based Charge Injection in n", Sinha et al., Elsevier Science, M					
	"Dynamic Effects	in SOI MOSF	ET's", Giffard et al., IEEE, 1991, pp	.160-161	·	,		
			or-Less Memory Cell for High Perfo n Integrated Circuits Conference, J			RAM	s",	
			ess for Bonded SOI Giga-bit DRAN nce, Oct. 1996, pp.114-115	ls", Lee et a	al., Procee	dings	1996	
			age DRAM for Macrocell or Memor of Solid-State Circuits, Vol. 24, No.					
			SOI DRAM Architecture for the Lov Circuits, Vol. 35, No. 8, August 20			nauch	i et	
/			rating Voltage Range by CMOS/SINtate Circuits Conference, pp.138-1		ology", Su	ma et	al.,	
1	"A Capacitorless	DRAM Cell on	SOI Substrate", Wann et al., IEEE	E IEDM. 199	3. pp.635	-638		
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Sheet 8 of 2

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EXAMINER INITIALS	DOCUMENT NUMBER	DATE		NAME	CLASS	SUB CLASS	FIL		
WSL	6,391,658	5/2002		Gates et al.					
		FOR	EIGN PA	TENT DOCUMENTS	·				
EXAMINER INITIALS	Document Number	DATE		COUNTRY	CLASS	SUB CLASS		LATION I/NO	
	OTHER DOCUMENT	S (Including	Author	, Title, Date, Pertine	nt Pages,	Etc.)	-		
NO	"The Multistable (et al., IEEE Work Burlington, pp.13"	shop on Low 1	lled Men Tempera	nory Effect in SOI Transisto ture Electronics, 7-8 Aug. 1	ors at Low 1 1989, Unive	emperatursity of Ve	res", T ermont	ack '	
1				le in MONOS Device Struc Device Letters, Vol. 16, No				191-	
	"Hot-Carrier Effect Letters, Vol. 15, N			epleted SOI MOSFET's", M 18-220	la et al., IEI	EE Electro	n Dev	ice	
	"Design Analysis Conference, Octo			Source/Drain Devices", 200	1 IEEE Inte	rnational	SOI		
	"SOI MOSFET on pp.1001-1004	Low Cost SP	IMOX Su	ıbstrate", İyer et al., İEEE II	EDM, Sept	ember 199	98,		
	"Simulation of Flo Technical Papers	eating Body Eff (IEEE Cat No	fect in S0 . 97 TH 83	OI Circuits Using BSIM3SO 03), pp.339-342	i", Tu et al.	, Proceed	ings of	f	
				Electrons and Holes Inclu n Electron Devices, Vol. 44				-671	
				DTMOS) for Ultra-Low Voll. Vol. 44, No. 3, March 199			ghi et	al.,	
/				ra-Thin-Film Fully-Depleted 1998, pp.1791-1794	I SOI MOSI	FETs", Yu	et al.,		
\bigvee	"Hot-Carrier Effect Device Research	ct in Ultra-Thin Conference D	-Film (U` Digest (C	FF) Fully-Depleted SOI MO at. No. 96 TH 8193), pp.22-23	SFET's, Yu	et al., 54	ⁱⁿ Annı	ıal	
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	OTHER DOCUMENTS	(Including	Author	, Title, Date, Pertiner	t Pages,	Etc.)		
WSL	"SOI MOSFET De Films", Chan et al			nal Scaling with Short Chani p.631-634	nel, Narrov	/Width an	d Ultra	a-thin
				SFET for Ultra Low Voltage Electronics, pp.58-59	Operation	", Assader	aghi e	t al.,
				leted SOI MOSFET by a Su al SOI Conference, Oct. 199			od", Yu	et
	"A Capacitorless (IEDM, Feb. 2002,		RAM C	ell Design for High Density	Application	s", Kuo et	al., IE	EE
	"A Dynamic Thres et al., IEEE IEDM,			T (DTMOS) for Ultra-Low Vo	oltage Ope	ration", As	sader	aghi
				(DTMOS) for Ultra-Low Volta , Vol. 44, No. 3, March 1997			ghi et	al.,
	"A Capacitorless (DRAM Cell on	SOI Sul	bstrate", Wann et al., IEEE	IEDM 1993	3, pp.635-6	538	
	"Studying the Imp Using BSIMPD", S Design (ISQED '0	Su et al., IEEE	Procee	on Dynamic Behaviors of P dings of the International Sy s)	artially-De mposium	pleted SO on Quality	I CMO Electi	S ronic
	MOS Structures b	y the Charge-	Pumping	SiO₂ Interfaces in Thick- and g Technique", Wouters et al nber 1989, pp.1746-1750	d Thin-Film I., IEEE Tra	Silicon-or ensactions	n-Insu on	lator
V	"An Analytical Mod Electronics Vol. 33			ture in SOI MOS Devices", ` '-364	rack et al.,	Solid-Stat	te	
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WSL			RAM with the Body Refresh Function 2, July 1997, pp.899-904	on", Tomishi	ma et al.,	IEICE
			or-Less Memory Cell for High Perforn Integrated Circuits Conference, .			RAMs"
			nnel Oxide in MONOS Device Stru Electron Device Letters, Vol. 16, N			
	"Capacitor-Less 1 2002, pp.10-13	1-Transistor DI	RAM", Fazan et al., 2002 IEEE Inte	ernational S	Ol Confere	ence, C
			ransistor Gain Cell on SOI", Ohsa November 2002, pp.1510-1522	wa et al., IE	EE Journa	I of So
			ligh Speed Ultra Large Scale Integ 9, Part 1, No. 1B, January 1994	ration", C. H	lu, Jpn. J.	Appl.
			e Accumulation in P+ -Poly Gate set al., Jpn. J. Appl. Phys. Vol. 37 (
V	by Ar-Ion Implant	ation into Soul	ar Action in Ultra-Thin-Film Fully-D rce/Drain Regions", Ohno et al., IE 198, pp.1071-1076			
						

DATE CONSIDERED

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			ATTY. DOCKET NO.	SERIAL	NUMBER		
P	PO-1449 (Modifie	d)	211.001-D3-US		10/724,6	48	
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 1			Author, Title, Date, Pertine			·····	
wsr			IOS Transistors Fabricated in Zone tron Device Letters, Vol. EDL-4, No.				
	"Silicon-On-Insula No. 6, June 1983		ansistors", Rodder et al., IEEE Elec	ctron Device	e Letters, \	/ol. E0)L-4,
		licon", Malhi et	ensional Integration of MOSFET's i al., IEEE Transactions on Electror				!,
		·	4 O'' I DDAM C-II	for Nones	-l- 1 0	401	1:_L
	Density Application	ons", Villaret et	d as a Capacitor-Less DRAM Cell t al., Handout at Proceedings of 20 to, Japan (2 pages)				ligh
-	"Mechanisms of (Charge Modula	ation in the Floating Body of Triple-	Well NMOS	FET Cana	citor-l	288
			t at Proceedings of INFOS 2003, Ju				
			chnology", M. Yamawaki, Proceedii Circuits Technology, 1998, Vol. 55		Symposiun	n on	
V		eport, Institute	um-off Current in Partially Depleted of Electronics, Information and Co 98), pp.27-34				
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		PORE	EIGN PA	TENT DOCUMENTS				
EXAMINER INITIALS	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUB CLASS	TRANS TE	ILATION S/MO
WSL	EP 1 288 955 A2	3/2003		European				
	EP 1 280 205 A2	1/2003		European				
	EP 1 253 634 A2	10/2002		European				
	EP 1 241 708 A2	9/2002		European				
	EP 1 209 747 A2	5/2002		European				
	EP 1 204 147 A1	5/2002		European				
	EP 1 204 146 A1	5/2002		European				
	EP 1 179 850 A2	2/2002		European				
	EP 1 162 744 A1	12/2001		European				
	EP 1 162 663 A2	12/2001		European				
	EP 1 073 121 A2	1/2001	<u> </u>	European				
	EP 0 993 037 A2	4/2000	ļ	European				
	EP 0 980 101 A2	2/2000		European				
lacksquare	EP 0 971 360 A1	1/2000		European				
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WSL	EP 0 951 072 A1	10/1999		European				
	EP 0 933 820 A1	8/1999		European				
	EP 0 924 766 A2	6/1999		European				
	EP 0 920 059 A2	6/1999		European				
	EP 0 869 511 A2	10/1998		European				
	EP 0 860 878 A2	8/1998		European				
	EP 0 858 109 A2	8/1998		European				
	EP 0 844 671 B1	11/2002		European				
	EP 0 836 194 B1	5/2000		European				
	EP 0 788 165 A2	8/1997		European				
	EP 0 744 772 B1	8/2002		European				
	EP 0 739 097 A2	10/1996	<u> </u>	European		_		
	EP 0 731 972 B1	11/2001		European				
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WSL	EP 0 727 820 A1	8/1996		European				
1	EP 0 726 601 B1	9/2001		European				
	EP 0 725 402 B1	9/2002		European				
	EP 0 689 252 B1	8/2000		European				
	EP 0 682 370 B1	9/2000		European				
	EP 0 642 173 B1	7/1999		European				
	EP 0 642 173 A1	3/1995		European				
	EP 0 606 758 B1	9/2000		European				
	EP 0 601 590 B1	4/2000		European				
	EP 0 599 506 A1	6/1994		European				
	EP 0 599 388 B1	8/2000	_	European				
	EP 0 579 566 A2	1/1994		European				
	EP 0·564 204 A2	10/1993		European				
V	EP 0 537 677 B1	8/1998		European				
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WIL	EP 0 510 607 B1	2/1998		European				
1	EP 0 465 961 B1	8/1995	 	European				
	EP 0 366 882 B1	5/1995		European				
	EP 0 362 961 B1	2/1994		European				
	EP 0 359 551 B1	12/1994		European		. <u>.</u> .		
	EP 0 354 348 A2	2/1990		European				
	EP 0 350 057 B1	1/1990		European				
	EP 0 333 426 B1	7/1996		European				
	EP 0 300 157 B1	5/1993		European				
	EP 0 253 631 B1	4/1992		European				
	EP 0 245 515 B1	4/1997		European	·			
	EP 0 207 619 B1	8/1991		European		,		
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WSL	2002/0036322	3/2002	Divakauni et al.		<u></u>		
	5,446,299	8/1995	Acovic et al.				
	5,568,356	10/1996	Schwartz				
_	5,627,092	5/1997	Alsmeier et al.				
	5,631,186	5/1997	Park et al.				
	5,740,099	4/1998	Tanigawa			ļ	
	5,877,978	3/1999	Morishita et al.				
	5,930,648	7/1999	Yang				
	5,939,745	8/1999	Park et al.				
	5,943,258	8/1999	Houston et al.				
	5,968,840	10/1999	Park et al.				
1	5,977,578	11/1999	Tang				
V	6,018,172	1/2000	Hidada et al.				
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WSL	6,297,090	10/2001	Kim				
	6,384,445	5/2002	Hidaka et al.				· · · · · · · · · · · · · · · · · · ·
V	6,590,258	7/2003	Divakauni et al.				
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WSL	JP 62 272561	11/1987	Japanese				
	JP 8 274277	10/1996	Japanese				
-	JP 9 82912	3/1997	Japanese				
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WSL	2002/0064913	5/2002	Adkisson et al.				
Î	2002/0072155	6/2002	Liu et al.				
	2002/0086463	7/2002	Houston et al.				
	2002/0089038	7/2002	Ning				
	2002/0180069	12/2002	Houston				
	2003/0102497	6/2003	Fried et al.				
	2003/0123279	7/2003	Aipperspach et al.				
	4,791,610	12/1988	Takemae				
	5,388,068	2/1995	Ghoshal et al.				
	5,446,299	8/1995	Acovic et al.				
	5,466,625	11/1995	Hsieh et al.				
	5,528,062	6/1996	Hsieh et al.				
	5,593,912	1/1997	Rajeevakumar				,
V	5,606,188	2/1997	Bronner et al.				
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WSL	3,776,243		 					
	5,784,311	7/1998		Assaderaghi et al.			<u> </u>	
	5,811,283	9/1998		Sun				
	5,886,376	3/1999		Acovic et al.				
	5,897,351	4/1999		Forbes				
	5,943,258	8/1999		Houston et al.				
	5,943,581	8/1999		Lu et al.				
	5,960,265	9/1999		Acovic et al.				
	6,096,598	8/2000		Furukawa et al.				
	6,097,056	8/2000		Hsu et al.				
	6,157,216	12/2000		Lattimore et al.				
	6,171,923	1/2001		Chi et al.				
1/	6,177,300	1/2001		Houston et al.				
V	6,177,708	1/2001		Kuang et al.				
		FOR	EIGN PA	TENT DOCUMENTS	·····			
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NSL	6,214,694	4/2001	Leobandung et al.			
	6,225,158	5/2001	Furukawa et al.			
	6,245,613	6/2001	Hsu et al.			
	6,297,090	10/2001	Kim			
	6,320,227	11/2001	Lee et al.	-		
	6,333,532	12/2001	Davari et al.			
	6,350,653	2/2002	Adkisson et al.			
	6,403,435	6/2002	Kang et al.			
	6,424,011	7/2002	Assaderaghi et al.		! 	
	6,424,016	7/2002	Houston			
	6,429,477	8/2002	Mandelman et al.			
	6,440,872	8/2002	Mandelman et al.			
	6,441,435	8/2002	Chan			

FOREIGN PATENT DOCUMENTS

Wu et al.

8/2002

6,441,436

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSI TES	
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EXAMINER INITIALS				NAME	CLASS	SUB CLASS	FIL DAT		
WSL	6,492,211	12/2002		Divakaruni et al.					
	6,544,837	4/2003		Divakaruni et al.				_	
	6,549,450	4/2003		Hsu et al.					
	6,552,398	4/2003		Hsu et al.					
	6,556,477	4/2003		Hsu et al.					
	6,566,177	5/2003		Radens et al.				-	
/	6,590,258	7/2003		Divakauni et al.					
V	6,590,259	7/2003		Adkisson et al.					
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INFORMATION DISCLOSURE STATEMENT	FILING DATE	GROUP ART UNIT		
BY APPLICANT	December 1, 2003	,		

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSL	6,650,565	11/2003	Ohsawa			
	6,632,723	10/2003	Watanabe et al.			
	6,621,725	9/2003	Ohsawa			_
	6,617,651	9/2003	Ohsawa			
/	6,531,754	3/2003	Nagano et al.			
\overline{V}	2002/0036322	3/2002	Divakauni et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Document Number	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION TES/NO
WSZ	2003-243528	8/2003	Japanese			
1	2002-94027	3/2002	Japanese			
	2002-176154	6/2002	Japanese			
	2002-246571	8/2002	Japanese			
	2002-329795	11/2002	Japanese			
	2002-343886	11/2002	Japanese			
	2002-353080	12/2002	Japanese			
,	2003-31693	1/2003	Japanese			
V	2003-86712	3/2003	Japanese			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WSL	DRAM Design Using the Taper-Isolated Dynamic RAM Cell, Leiss et al., IEEE Transactions on Electron Devices, Vol. ED-29, No. 4, April 1982, pp707-714

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Pī	ro-1449 (Modified)	211.001-D3-US 10/724,648					
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1	2003-100900	4/2003	Japanese					
	2003-132682	5/2003	Japanese					
	2003-203967	7/2003	Japanese					
	2003-243528	8/2003	Japanese					
	09046688	2/1997	Japanese					
. /	JP 8-213624	8/1996	Japanese					
V	JP 3-171768	7/1991	Japanese					
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